Abstract of the Disclosure

A method for simulating a missile by means of using a missile simulator during testing of an aircraft system that includes a weapons system where the missile is controlled from the weapons system by a trouble signal in a control loop by means of the said the trouble signal positioning a target seeker in the missile and through the sending back of the target seeker's position to the weapons system via an actual value signal. The following steps are included:

- a) the target seeker in the missile is commanded by the weapons system to adopt a predetermined position;
- b) the missile simulator measures the control loop's trouble signal, generates an actual value for the position of the target seeker and sends the actual value to the weapons system; and
- c) the weapons system calculates a new trouble signal for the control loop.

 Steps b to c are repeated during the test.